

EL PASO NATURAL GAS COMPANY  
OPEN FLOW TEST DATA

DATE November 9, 1973

Operator <b>El Paso Natural Gas Company</b>		Lease <b>San Juan 27-5 Unit #167</b>	
Location <b>1460/S, 990/W, Sec. 32, T27N, R5W</b>		County <b>Rio Arriba</b>	State <b>New Mexico</b>
Formation <b>Dakota</b>		Pool <b>Basin</b>	
Casing: Diameter <b>4.500</b>	Set At: Feet <b>7651'</b>	Tubing: Diameter <b>1 1/2"</b>	Set At: Feet <b>7601'</b>
Pay Zone: From <b>7440</b>	To <b>7620</b>	Total Depth: <b>7651</b>	Shut In <b>10-19-73</b>
Stimulation Method <b>Sandwater Frac</b>		Flow Through Casing <b>XX</b>	Flow Through Tubing

Choke Size, Inches <b>2.750" Plate; 4" Meter</b>		Plate Choke Constant: C <b>41.10</b>		Tested through a 3/4" Variable choke	
Shut-In Pressure, Casing, PSIG <b>2640</b>	+ 12 = PSIA <b>2652</b>	Days Shut-In <b>21</b>	Shut-In Pressure, Tubing PSIG <b>2610</b>	+ 12 = PSIA <b>2622</b>	
Flowing Pressure: P PSIG <b>145 meter; 214 we-head</b>	+ 12 = PSIA <b>157 meter; 226 wellhead</b>		Working Pressure: P <sub>w</sub> PSIG <b>562</b>	+ 12 = PSIA <b>574</b>	
Temperature: <b>T = 75 °F</b>	n = <b>Ft = .9859</b>		F <sub>pv</sub> (From Tables) <b>1.013</b>	Gravity <b>.655</b>	<b>F<sub>g</sub> = 1.236</b>

$$\text{CHOKE VOLUME} = Q = C \times P_f \times F_t \times F_g \times F_{pv}$$

$$Q = \text{Calculated from orifice meter readings} = \underline{\hspace{2cm}} \underline{2732} \text{ MCF/D}$$

$$\text{OPEN FLOW} = Aof = Q \left( \frac{P_c^2}{P_c^2 - P_w^2} \right)^n$$

$$Aof = Q \left( \frac{7033104}{6703628} \right)^n = (2732)(1.0491)^{.75} = (2732)(1.0366)$$

$$Aof = \underline{\hspace{2cm}} \underline{2832} \text{ MCF/D}$$

Note: The well produced 13.7 bbls of 49.1° API Gravity Oil and 20 bbls of water during the test.

TESTED BY Carl Rhames

WITNESSED BY \_\_\_\_\_

*H. E. M. Anally*  
Well Test Engineer

